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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08,935,365	09/22/1997	R. LEE ROBERTS	RFMC-0078	8574

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EXAMINER

DRODGE, JOSEPH W

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/935,365

Applicant(s)

ROBERTS ET AL

Examiner

JOSEPH DRODGE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 6, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-28 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Response to Amendment

1. The Amendment filed on May 6, 2003 to cancel claims 1-5 has not been entered since claims 6, 7 which depends from claim 1 remain pending and are treated on the merits in this Office Action.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Roberts (765).

With respect to claim 1, Roberts (765) discloses an underdrain block (12) for supporting a filter media bed in a liquid filtration system, comprising an upper wall (40,44), a pair of side walls (52) and a lower wall, at least one lateral member (partitions 18,24) within the underdrain block (12) between the upper wall (40) and the lower wall, at least two chambers (20 & 22 or 26 & 28) within the underdrain block and defined by the lateral member (18 or 24), and further comprising a plurality of orifices (42) in the upper wall of the block (12). Also disclosed are a plurality of

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internal orifices (36) in at least the lateral (horizontal) member (18), wherein the underdrain block (12) is jointless and extends substantially the length of a filter media being supported thereby, as in figs. 2-3 and cols. 3-4.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Berkebile et al (627).

With respect to claim 1, Berkebile et al disclose an underdrain block (10) for supporting a filter media bed in a liquid filtration system, comprising an upper wall (12), a pair of side walls (16) and a lower wall, at least one lateral member (partitions 24 & 26 or 32 & 34) within the underdrain block (10) between the upper wall (12) and lower wall, at least two chambers (28 & 30, 36, 38 & 40) within the underdrain block and defined by the lateral members (24, 26, 32, 34), as in figs. 2-3. Berkebile et al also disclose the block further comprising a plurality of orifices (14) in the upper wall of the block (10), and a plurality of internal orifices (48, 50 & 33, 35) in at least the lateral member (24 & 32, 34, respectively) wherein the underdrain block (10) is jointless (up to a desired length upon extrusion) and extends substantially the length of a filter media being supported thereby, as in figs. 2-3 and cols 5-8.

Concerning claim 5, Berkebile et al disclose the internal orifices (48, 50) extending in the same direction as the orifices (14) in the upper wall (12) of the underdrain block (10), as in figs. 1-3.

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5 Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al (388).

With respect to claim 1, Brown et al (388) disclose an underdrain block (146) for supporting a filter media bed in a liquid filtration system, comprising an upper wall (148), a pair of side walls (152) and a lower wall (150), at least one lateral member (internal walls, 154) within the underdrain block (146) between the upper wall (148) and the lower wall (150), at least two chambers (156 & 158) within the underdrain block and defined by the lateral member (154), as in figs. 11-12. Also disclosed are the block further comprising a plurality of orifices (164) in the upper wall (148) of the block (146), and a plurality of internal orifices in the lateral members (in both transverse and vertical internal walls, 154), wherein the underdrain block (146) is jointless (at least up to a length of 4 feet) and extends substantially the length of a filter media being supported thereby, as in figs. 11-12 and cols. 9-10. Note that the examiner has considered that the filter media being supported by the underdrain block has a length of at least up to 4 feet.

Regarding claims 2 and 3, Brown et al also disclose one conduit (26) in the lower wall for an effluent to flow out of the underdrain block and for water and air to flow into the underdrain and up towards the filter media bed, and further comprising a passageway between an end of at least one chamber (158) and a wall sleeve (20), wherein the wall sleeve (20) providing the conduit (26), as in figs. 1 and 11 and cols. 4-6 and 9-10.

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With regards to claim 4, it is inherent that upon supporting a liquid filtration system having a filter media bed having a length of at least up to 4 feet (as mentioned above), that the underdrain of Brown et al (388) would be extending the length of the filter media bed.

Concerning claim 5, Brown et al disclose the internal orifices formed in the transverse (horizontal) lateral member (154) of the block (146) extending in the same direction as the orifices (169) formed in the upper wall (148), as in figs. 11-12.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. Claims 6, 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (388) in view of Roberts (765) or Berkebile et al (627).

With respect to claims 6, 7 and 28, Brown et al (388) do not disclose the underdrain block having a longitudinal length of at least 10 feet (claim 6), at least 20 feet (claim 7) or at least 5 feet (claim 28) and being jointless at these recited lengths. However, Brown et al does disclose formation of individual blocks which may be about four feet in length (column 5, lines 25-26, column 7, line 64). Roberts teach formation of an intermediate product comprising a continuous (i.e. jointless) multi-block section initially formed as a single unit, followed by cutting of the section into individual blocks, formation of apertures (orifices) and partitions (lateral dividing members) occurring either before or after cutting of the section to form individual blocks (see column 4, lines 36-47). It is also considered that Berkebile et al teach that the exterior and internal walls of block may be extruded to form continuous lengths of filter block (column 7, lines 54-61, especially lines 59-61), rather than being cut into individual blocks which are joined into an interlocking relationship by joints comprising grouting or adhesive (column 5, lines 22-33).

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Hence, At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have considered Brown et al (388) as obviously having *block sections having lengths of multiples of 4 feet, i.e. exceeding 5 or 10 or 20 feet, as an intermediate product, before being cut to form individual blocks of 4 feet*, in view of Berkebile et al and Roberts, since a block section later forming individual blocks of 4 feet must inherently be much longer than 4 feet in length.

Alternatively, At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have *modified the Brown et al (388) final product by deleting the cutting step from the manufacturing process, as suggested by Berkebile et al and Roberts, again leaving a continuous length of block section of a multiple of four feet*, in order to provide greater durability during transportation and installation (column 7, lines 57-58 of Berkebile et al) and also inherently facilitate manufacturing/processing by having fewer total manufacturing steps.

Allowable Subject Matter

9. Claims 18 and 19 are allowed.

Claims 18 and 19 distinguish for reasons advanced within the Board Decision of January 27, 2003.

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Conclusion

10. This Office Action is not a Final Office Action, since New Grounds of Rejection are advanced, based on different interpretations of combined teachings of the Brown et al, Berkebile et al and Roberts references.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Drodge whose telephone number is (703) 308-0403. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM - 4:45 PM.

The fax phone number for this Group is (703) 872-9310 or (703) 872-9311 for after final submissions. When filing a FAX in Tech Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Joseph W. Drodge
Primary Examiner
Art Unit 1723

JWD
June 12, 2003